



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/555,270	11/01/2005	Marc Lambertus Vlemmings	NL 030453	5108
65913 NXP, B.V. NXP INTELLECTUAL PROPERTY & LICENSING M/S41-SJ 1109 MCKAY DRIVE SAN JOSE, CA 95131	7590 05/11/2010			
EXAMINER				
AKINYEMI, AJIBOLA A				
ART UNIT		PAPER NUMBER		
2618				
NOTIFICATION DATE		DELIVERY MODE		
05/11/2010		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

# Office Action Summary

**Application No.**

10/555,270

**Applicant(s)**

VLEMMINGS, MARC LAMBERTUS

**Examiner**

AJIBOLA AKINYEMI

**Art Unit**

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 February 2010.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,8-13 and 16 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1,2,8-13 and 16 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 01 November 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB06)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ ~~Notice of Informal Patent Application~~  
6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Objections*

1. Claims 14 and 15 objected to because of the following informalities: claims 14 and 15 depend on a withdrawn claim. Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 8, 9-13, 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Shen (Pub. No.: US 2004/0116087A1).

#### With respect to claim 1:

Shen discloses a receiver for receiving a radio frequency signal having a center frequency that is comprised in one of at least two frequency bands, the receiver comprising; oscillating means (**fig.3, item 87**) for generating a first mixing signal (**fig.3, input to item 81 from item 87**) having a first frequency; a frequency divider (**fig.3, item 89**) arranged to derive a second mixing signal (**fig.3, input to item 85 from item 89**)

from the first mixing signal; a first mixer (**fig.3, item 81**) arranged to down-convert the radio frequency signal (**fig.3, item 73**) to a first lower frequency signal (**fig.3, output of item 81**) using the first mixing signal (**fig.3, item 81**); and a second mixer (**fig.3, item 85**) arranged to down-convert the first low frequency signal to a second lower frequency signal (**fig.3, output of item 85**) using the second mixing signal (**fig.3, item 85**) in which a division factor of the frequency divider (**fig.3, item 89**) and a ratio between the center frequency and the first frequency are determined by the one of at least two frequency bands (**parag.0019 discuss how center frequency is vary with oscillator frequency through a frequency divider**).

With respect to claim 8:

Shen discloses a method for receiving a radio frequency signal (**fig.3, item 73**) having a center frequency that is comprised in one of at least two frequency bands, the method comprising the steps of: generating a first mixing signal (**fig.3, item 81**) that has a ratio to the center frequency, which ratio is determined by the one of at least two frequency bands; deriving a second mixing signal (**fig.3, item 85**) from the first mixing signal by using a frequency divider (**fig.3, item 89**) having a division factor which is determined by the one of at least two frequency bands comprising the center frequency (**parag.0019**); down-converting the radio frequency signal to a first lower frequency signal (**fig.3, output of item 81**) using the first mixing signal (**fig.3, item 81**) and down-converting the first lower frequency signal (**fig.3, output of item 81**) to a second lower frequency signal (**fig.3, output of item 85**) using the second mixing signal (**fig.3, item 85**).

With respect to claim 9, 11:

Shen discloses a receiver according to claim 1, wherein the ratio between the center frequency and the first frequency is equal to  $(N+1)/N$ , wherein  $N$  is the division factor (Shen discloses intermediate frequency to be variable, center frequency is also variable with the local oscillator.

With respect to claim 10, 12:

Shen discloses a receiver wherein the ratio between the center frequency and the first frequency is equal to  $(N-1)/N$ , wherein  $N$  is the division factor (Shen discloses intermediate frequency to be variable, center frequency is also variable with the local oscillator.

With respect to claim 13, 16:

Shen discloses a transceiver wherein frequencies of the first mixing signal and second mixing signal are not fixed and are variably dependent on the center frequency of the radio frequency signal (Shen discloses intermediate frequency to be variable, center frequency is also variable with the local oscillator; parag.0019).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shen (Pub. No.: US 2004/0116087A1) and further in view of Durec (Patent No.: US 6144846).

With respect to claim 2:

The rejection of claim 1 is incorporated; Shen did not disclose phase shifter for shifting the phase of the second mixing signal. Durec discloses phase shifter (fig.1, item 30). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a phase shifter in order to shift the phase of an input signal on the basis of the phase shift characteristics of the circuit and output the resultant signal.

***Response to Arguments***

7. Applicant's arguments filed 02/04/2010 have been fully considered but they are not persuasive. Regarding claims 1 and 8, applicant argued that Shen reference does not disclose a division factor of the frequency divider ratio between the center frequency and first frequency are determined by at least two frequency bands. Examiner respectfully disagrees with this statement because Shen discloses this limitation and

how center frequency is being varied with local oscillator frequency through a frequency divider in parag.0019. Applicant also argued that there is no reason for restriction in the above application. Examiner respectfully disagrees with the applicant because the above invention is divided into three groups. Group one of which is a receiver, group two of which is a transmitter and group three a transceiver. Group one and two are subcombination disclosed as usable together in a single combination to meet invention in group three. Group one and three are related as combination and subcombination which are distinct if it can be shown that combination as claimed does not require the particular of the subcombination as claimed for patentability. Group two and three are related as combination and subcombination which are distinct if it can be shown that combination as claimed does not require the particular of the subcombination as claimed for patentability.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AJIBOLA AKINYEMI whose telephone number is (571)270-1846. The examiner can normally be reached on monday- friday (8.30-5pm) Est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, YUWEN PAN can be reached on (571) 272-7855. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AA  
/Yuwen Pan/

Primary Examiner, Art Unit 2618